

REMARKS

Claims 22-44 are pending.

Claims 22-44 are rejected.

35 U.S.C. § 103

Claims 22-44 are rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over Newsome (4,457,960) in view of Lai et al. (5,272,236).

It is the Examiner's position based on the Newsome and Lai references that it would have been obvious to one skilled in the art to substitute the polymer described in Lai in the film structure described in Newsome. A complete discussion of the Examiner's arguments can be found in paper 58.

With respect to the rejection under 35 U.S.C. § 103(a) of claims 22-44 as being unpatentable over Newsome in view of Lai, Applicants respectfully submit that claims 22-44 distinctly define the present invention from any of the art of record taken singly or in combination, in view of the remarks presented below.

Newsome discloses oriented multiple layer polymeric film structures useful in the manufacturing of shrink bags. Newsome discloses from Col. 2, line 41 to Col. 3, line 45, several embodiments of the invention. These embodiments are exemplified as either three or five layer structures wherein various combinations of ethylene vinyl acetate copolymer and LLDPE are taught as useful in various layers (except the barrier layer).

The Examiner has noted in support of her rejection, a particular embodiment of Newsome film structures, which is shown at Col. 3, line 10. The Examiner has stated the following regarding this film structure:

Newsome teaches linear low density polyethylene (LLDPE) used in multiple layer molecularly oriented films (Abstract). The film includes a first barrier layer having two opposing surfaces wherein first and/or second pairs of layers are adhered. In preferred structures the first pair of layers comprises 70% to 100% EVA and the second pair of layers comprises 10% to 90% LLDPE. In an embodiment involving a partial reversal of roles, the first pair of layers comprises 50% to 100% LLDPE. The second and third layers, or barrier layer, may comprise an ethylene vinyl acetate (EVA), and the fourth layer comprises 10% to 100% LLDPE (column 2, lines 50 to column 3, line 24). Newsome uses conventional LLDPE, wherein one commercially available material is DOWLEX (column 5, lines 45+). The barrier

layer may be ethylene vinyl alcohol copolymer (column 3, lines 25-28). A substantial end use of the film is in heat sealable...

However, Applicants respectfully wish to note that in the above embodiment in which the fourth layer comprises 10% to 100% LLDPE, this embodiment is a five layer structure comprising a barrier layer, a first pair of layers and a second pair of layers wherein the pairs of layers comprise various percentages of EVA and LLDPE. Therefore, the fourth layer is bonded to one of said second and third layers (Col. 3, lines 17 to 19) and not to the barrier layer. In Applicants' invention, the layers comprising the ethylene alpha-olefin copolymer formed by the polymerization reaction in the presence of a single site catalyst are adjacent the barrier layer. Therefore, it is respectfully submitted that the embodiment which the Examiner has used to support the rejection does not make obvious Applicants' invention because the Newsome layer does not have the same relationship to the barrier layer as in Applicants' invention.

At Col. 3, line 50 to Col. 4, line 59, Newsome discloses a three layer structure (Fig. 2) having a barrier layer, a heat sealant layer and an outer layer. The barrier layer is saran, EVOH and blends of EVOH (Col. 4, lines 59 to 60). The heat sealant layer (Col. 3, line 16) is 10% to 100% of an EVA and 0% to 90% LLDPE. The outer layer (layer 18) (Col. 3, lines 64 to 65) is a blend of 10% to 100% EVA and 90% to 0% LLDPE. Newsome further discloses at Col. 4, lines 58 to 60 the following:

Films having 100% LLDPE in either layer 16 or 18 are not preferred because of difficulties in manufacturing them.

Thus, Newsome teaches that layers adjacent the barrier layer cannot have 100% LLDPE. Therefore, one of ordinary skill in the art would not be motivated to substitute 100% linear olefin polymers of Lai in the films of Newsome because Newsome teaches that film having 100% LLDPE are not acceptable.

Therefore, in view of the above remarks, it is respectfully submitted that not only does Newsome not make obvious Applicants' invention, it actually teaches against Applicants' invention because Newsome teaches that a 100% LLDPE layer adjacent the barrier layer is not acceptable.

Lai discloses linear olefin polymers having several uses, *i.e.*, fibers, films and molded parts without any teaching or suggestion as to how its linear olefin polymers could be specifically utilized in these various areas. Lai also does not disclose any advantages or disadvantages associated with

the use of its linear olefin polymers in the general areas disclosed. Therefore, a reader of Lai would have no guidance on how to utilize the linear olefin polymers in any of the areas disclosed, or whether or not the use in a particular area would truly be advantageous.

While Lai discloses linear olefin polymers and some of the properties associated with these polymers, Lai does not disclose any of the problems or benefits of the use of these polymers in a multilayer film such as those exemplified by Applicants' claims. In fact, Lai does not teach or suggest the use of these polymers in a multilayer film let alone a multilayer film having a barrier layer. Also, Lai does not teach or suggest any cross-linking properties of the linear olefin polymers or how these polymers will respond to irradiation.

Applicants submit that the present invention is not made obvious by Lai. In order to arrive at applicants' invention, Applicants have utilized several different applications of the linear olefin polymer. These applications are: the use in a multilayer films; use in a multilayer films having a barrier layer; and use in a multilayer layer films having a barrier layer which is irradiated. None of these applications are taught or suggested in Lai.

It is Applicants' position, therefore, that in view of Applicants' remarks regarding the patentability of the present invention as described in claims 22-44 over the art, the rejections under 35 U.S.C. § 103 have been overcome.

Claims 22-44 are rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Newsome (4,457,960) in view of Schut "Enter a New Generation of Polyolefins" Nov. 1991, Plastics Technology, or Van der Sanden "A New Family of Linear Ethylene Polymers With Enhanced Sealing Performance" February 1992.

The Newsome reference has been discussed above.

The Schut reference discloses polyethylenes made using different single-site catalysts. The Schut reference further discloses that these polyethylenes, depending on the process and single-site catalyst used can produce, polyethylenes having usefulness in many different applications (such as cast films, and wire/cable coatings). The Schut reference does not, however, teach or suggest any specific film structures or any general film structures such as barrier versus non-barrier type film structures or how any specific resin which is produced using a single-site catalyst might behave in any given film structure.

The Van der Sanden reference discloses linear ethylene polymers having lower seal initiation temperatures, toughness and strength. Therefore, the reference only discloses properties of particular linear ethylene polymers without any teaching or suggestion as to how these particular properties would perform or be utilized in an environment of other resins. The fact that a particular resin has improved properties does not of itself mean that these properties could not be compromised by the presence of other resins, cross-linking or any other factors which are involved in the design of film structures, such as those of the present claims.

Applicants respectfully submit that in view of the above remarks, this rejection has been overcome.

35 U.S.C. § 102

Claims 22-31, 39-42 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Ahlgren (U.S. 5,604,043).

The present application U.S. Serial No. 08/899,410, filed July 23, 1997, is a continuing (file wrapper continuation) application of U.S. Serial No. 08/481,685, filed June 7, 1995. During the prosecution of U.S. Serial No. 08/481,685, Applicants claimed priority under 35 U.S.C. § 120 from U.S. Serial No. 08/082,226, filed June 24, 1993. This priority claim was asserted in a response filed August 22, 1996 in reply to the Office Action dated February 22, 1996 for U.S. Serial No. 08/481,685. Therefore, Applicants respectfully submit that based on the effective filing date of June 24, 1993 for the present application, U.S. Patent No. 5,604,043 to Ahlgren does not qualify as prior art because of its (Ahlgren) effective filing date of September 20, 1993.

Claims 32-38 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahlgren (U.S. 5,604,043).

The Ahlgren reference has been discussed above.

Claims 22-44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Newsome (U.S. 4,457,960) in view of Ahlgren (U.S. 5,604,043).

The Newsome and Ahlgren references have been discussed above.

Double Patenting

Claims 22-24 are provisionally rejected by the Examiner under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 17, 18, 20 and 21 over copending Application No. 09/369,978.

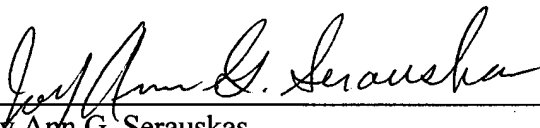
In view of the fact that neither the conflicting claims (17, 18, 20 and 21 of copending Application No. 09/369,978) nor the pending claims have been allowed, Applicants respectfully submit that the double patenting rejection is premature. Applicants would be willing to reconsider this rejection if and when any of the claims are indicated as allowable.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully submit that all of the claims in the application are in allowable form and that the application is now in condition for allowance. If, however, any outstanding issues remain, Applicants urge the Patent Office to telephone Applicants' agent so that the same may be resolved and the application expedited to issue.

Respectfully submitted,

Date: August 10, 2004

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